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WHAT IS THE ANALOG?

PHILOFICTION DELEUZE, DELEUZE/GUATTARI, DIGITAL, LOGOS, NON-LARUELLE, NON-PHILOSOPHY, REAL

This is an excerpt from a forthcoming essay on "The Golden Age of Analog."

What does the analog mean today? A hard question indeed. For the digital, many will simply make reference to things like Twitter, Playstation, or computers in general. Here one might be correct, *but only coincidentally*, for the basic order of digitality (the digitality of digitality) has not yet been demonstrated through mere denotation. The question of the analog is harder still, with responses often also consisting of mere denotations of things: sound waves, the phonograph needle, magnetic tape, a sundial, the wheel. At least denotation itself is analogical. But still what's the answer? Shall we flip a coin? Or, better yet, roll the coin down the hall and let it land where it will.

The analog, what is it? A number of contemporary authors have taken up the question directly. Consider Kaja Silverman's most recent work, where now in two consecutive volumes she has turned her attention away from difference and toward its putative antonym, analogy. Or recall how the first great Deleuzian in North America, Brian Massumi, once wrote an essay called "On the Superiority of the Analog." I shudder to think how badly he would be trolled online if he were to pen such an essay today. Even at the height of the first Internet bubble, Massumi stayed true to his principles. He knew that to be a Deleuzian obligated one to embrace the analog fully, *to become an analog philosopher*.

Recall how counter-intuitive this would have been at the time: it was common for readers to posit Deleuze as a kind of "champion of the digital." For wasn't the "virtual" in virtual reality a synonym for Deleuze's virtual? And wasn't the distributed network itself based on Deleuze and Guattari's concept of the rhizome? Not at all, apparently. To his credit Massumi understood that the virtual in Deleuze was explicitly analogical not digital, and the rhizome while nonlinear and "networked" was still nevertheless a form of analogical propagation (asexual rather than sexual, non-symbolic rather than symbolic, and so on).

Likewise Massumi was not shy about providing clear definitions of the analog and the digital. For him the analog is "a continuously variable impulse or momentum that can cross from one qualitatively different medium into another. Like electricity into sound waves. Or heat into pain. [...] Variable continuity across the qualitatively different: continuity of transformation." The analog is thus a question of representation via continuous variation, a representation able to cross between qualitatively different

entities or zones. (One famous analog example in Deleuze and Guattari is the wasp and the orchid.) By contrast, Massumi defined the digital as “a numerically based form of codification (zeros and ones)...a close cousin to quantification.” These definitions will serve nicely for the time being: If computers, Twitter, and Playstation are digital it is because they operate using quantified symbols; and if waves, vinyl records, magnetic tape, and sundials are analog it is because they operate using continuous variation across qualitative difference.

The word “analog” is something of a doorway because it opens up and indicates a pathway forward. In its etymology, the word analog contains an answer to the question, at least the beginning of such an answer. Analog is formed from *ana* and *logos*, two Greek terms that themselves are not entirely evident. *Logos* is a common Greek term; it contains a number of combined meanings that don't necessary map easily into English. Philosophers like Jacques Derrida have spent countless hours — years even — plumbing the nuance and sophistication of *logos*. In a day-to-day sense *logos* means speech, as when Socrates speaks to his interlocutor, or listens to the speech of another. In each case it is a question of *logos* as speech or word. The famous phrase that opens the Gospel of John — *In the beginning was the word* — ends in its Greek rendering with the term *logos* [Ἐν ἀρχῇ ἦν ὁ λόγος]. “At the foundation is the *logos*” might be a more philosophical rendering of the line. Cognate with *logos* are Greek words like *lego* [λέγω] (say, speak) and *logismos* [λογισμός] which means accounting, counting, calculating, reckoning, and reason, and from which we derive English terms such as logic.

Embedded here is the second important meaning of the word *logos*. *Logos* mean speech, discourse, and word but it also means *ratio* and thus by extension *rationality* and reason. The connection between “word” and “ratio” might not be entirely clear. But consider the composition and delivery of speech as in rhetoric for example. To speak — and to speak *well* — means to speak in a way that is coherent, to speak in a way in which words form proper compositional arrangements. In a general sense, *logos* refers to order, particularly a sense of rational, discursive order in speaking. But ratio also has a more literal use here. Consider common mathematical ratios like 3-to-4 or 5-to-8 (3/4 or 5/8). Or consider simple words like “cat,” “bat,” and “mat.” In each of these examples there exists a ratio composed out of elemental units. The ratio of 3-to-4 or 5-to-8 is only made possible because of a pre-existing condition, that the integers exist and that they may come into relation with each other. Ratio therefore relies on a *foundation of consistency* furnished for it. Likewise words like cat, bat, and mat are composed out of alphabetical elements that themselves have been defined explicitly in terms of their ability to be recombined into large words. In this way ratio, rationality, and word, and indeed *logos* overall, are thus a form of proper arrangement out of a foundation of symbolic consistency.

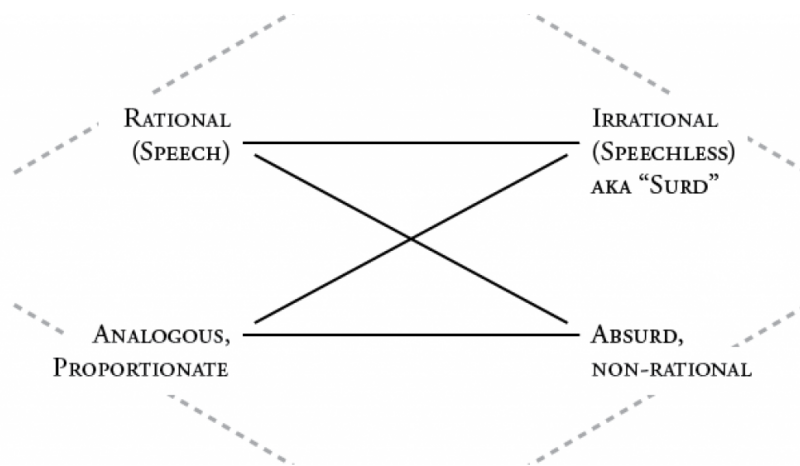
Analogos is something a bit different. First and foremost the analog is not the negation or inversion of *logos*. The prefix *ana-* is not the same as *a-*, the so-called alpha privative used in terms like “atheist” or “atypical” to negate the meaning of the root. The *ana-* in analog does not negate *logos*, nor present its contrapositive form, but in fact produces a different relationship, a kind of parallel or implicative relation. Of course in its most common sense *ana* means up or upward. *Ana* is the opposite of *kata*, meaning down or downward. Thus a “katabatic” wind is the wind that rushes downward off of an icy glacier. And “anabasis” refers to an opposite kind of motion, an upsurge or rushing in, as in a phrase like “the anabasis of desire” made popular in the 1960s and '70s. But that's not the definition used here. *Analogos* does not mean “upward-speech.” As Pierre Chantraine reminds us in his dictionary of Greek etymology, *ana-* can also have a kind of distributive value, meaning “at the rate of,” “by reason of,” or “[in] proportion to.” This begins to approximate the true meaning. *Analogos* means proportionate or comparable. Thus *analogos* means literally “proportionate with” or “according to” a due *logos*. One might simply say that the analog is *well proportioned or suitable*.

(But does this not introduce a secondary problem: If *logos* means ratio and *analogos* means proportion, well then what do ratio and proportion mean, and how are they different? The answer comes out not so much in terms of the *capacity* to compare but the *quality and nature* of comparison and combination of entities. The analog pertains to a comparison of particulars; such is the meaning of proportion. By contrast *logos* — *logos* as ratio — pertains to a recombination of standard elements. Thus instead of a comparison of particulars, *logos* is always a question of the commensurable or the symmetric [σύμμετρα], literally the thing “with measure” or that which is measurable *with* the same thing, that is, by the same standard. In this way *logos* presupposes a kind of radical symbolic equality, that is to say, the conditions of possibility in which things are made equal through abstraction. By contrast the analog entails something like the common, not a symbolically equal foundation but a general condition of commonality.)

“The Greek Logos had no opposite,” wrote Michel Foucault in 1961, and many since have contemplated what he might have meant by such an assertion. For what so confounded Foucault in his first book, a study of madness, was the unspeakable nature of non-speech. The simple opposite of *logos*, for the Greeks, was *alogos*. These are the ones without speech, the brutes and animals, and most importantly the child, the “infant” (from the Latin meaning “unspeaking” or “without speech”). So *alogos* is the direct inversion of *logos*, and thus means literally unreason and the irrational. But *alogos* is also an inversion of the very speech of *logos*, and thus *alogos* refers literally to speechlessness. “The alogon prohibits speaking,” wrote Michel Serres. The *alogos* is mute. No word. No speech.

There is also a strictly mathematical aspect to the story worth interjecting at this point. Consider the earlier example of ratio — 3/4 or 5/8 — which is to say fractional values produced from a ratio between discrete integers. Mathematicians have a name for these kinds of numbers. Unsurprisingly they are called *rational numbers*. Or, via the vocabulary used thus far, we might informally

dub them “ratio numbers” or even “*logos* numbers.” Rational numbers are the numbers that can be produced through a ratio between two integers. There are a great many number of these kinds of *logos* values. Ancient mathematicians presumed that all numerical values could be determined through a ratio of integers. Recall that between any two existing values it is always possible to insert another value halfway between the two; thus the line of rational numbers is a “dense” sequence of values. Still it did not take long for early mathematicians to discover that there are mathematical values that cannot be expressed as a ratio of integers. Furthermore such numbers were not exotic or rare, but in fact quite common and immediate, values like π or the square root of 2, the former a value embedded in every circle, the latter a value easily constructed as the diagonal of the square with side length of one. At the discovery of such numbers, ancient mathematics experienced something of a crisis, and was forced to accommodate a whole new category of numbers, numbers that quite literally had “no ratio.” With no ratio these new numbers were called “irrational” numbers. (Likewise in our informal parlance they might be called *alogos* numbers.) In this way, the Greek *logos* did have an opposite, an opposite found in *alogos* numbers like π and the square root of 2. But if Foucault was wrong in a superficial sense, he was certainly correct in a more profound sense. If the *logos* numbers present an elemental form of symmetric measurability, then the *alogos* numbers are asymmetrical and incommensurable. There is for them quite literally no “common measure” (no *κοινὸν μέτρον*). The infant is the nonspeaking, as was already mentioned, but there is another Latin word, *surd*, that means mute or unspeaking. And even today you will find mathematicians who call irrational numbers by this particular synonym: surds. Hence an elemental typology with *logos* and *analogos*, surd and absurd.



The question again: What is the analog? Colloquially “analog” means the offline, the old, the real, the authentic, the richly aesthetic. More specifically, the analog, as we have seen, refers to: continuous variation and indeed continuousness as such; integration to the whole; proportion, comparison, correspondences, and qualitative similarity. Hence the analog is found most easily in curves and waves, in an aesthetic of smoothness and unbroken lines, planes, or volumes. The mirror, the echo, the ghost, the trace, the outline, these are paradigmatic analog modes. Its materiality is water, liquidity, flow, or perhaps plastic with its molding and continuous variation. Plastic, but also metal, with metallurgical annealing as a kind of analogical liquification of matter. Is this a form of abstraction, abstraction like the digital? The answer is not so clear. The analog is not abstract, if by abstraction one means symbolic reduction. However it is possible to conceive of abstraction in strictly analog means by way of the concept of the virtual: A tangent line is an abstraction of a curve; liquid ice is an abstraction of water (and vice versa).

The analog may be generalized into four movements or mechanisms. (1) First, the analog follows the “rule of the one” meaning that it tends toward an integration from the multiple into the continuous — and beware that “one” must not be confused with terms like totality, universality, the Whole, or the All, since those are all symbolic and hence digital categories. (2) The analog relies on a substrate where all elements are strictly heterogenous to each other, which is to say they relate only via qualitative difference without recourse to any kind of abstract or symbolic infrastructure. Thus there is no such thing as an analog alphabet or an analog genome. (3) The analog leverages qualitative transformations to assemble real forms. And finally, (4) the analog generates an identity or “immanent relation.” This identity is generated out of proportionality, similarity, or correspondence within the heterogeneous substrate.

Moving beyond the consumer-electronics theory of digital and analog, a whole new landscape becomes visible. What are the greatest technologies of the digital? The logic gate and the computer are merely the latest in a long stream of digital technologies that would begin with the integers, the alphabet, or even the atom, the synapse, the gene, the dialectic, and even the point itself, if not the line too, and the plane.

At the same time, to think beyond consumer electronics liberates the analog as well. The analog is now not simply the vinyl record or the magnetic tape, but duration, intensity, sensation, affect, as well as the wave, the gradient, and the curve. Indeed the analog is quite simply *the real*, but a real having been denuded of its romantic and nostalgic aura, the real without any logic of presence or absence, the real without the principle of norm and deviation. Here the real is understood as the plenum, where representation — if representation is still the proper word for the analog — is fully coextensive with reality. The analog is the real

with no abstraction, no reduction, no "sampling" of the real. This is not to deny that the analog is a mode of mediation. It is simply to claim that the analog is a mode of mediation that always *remains within the real*.

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